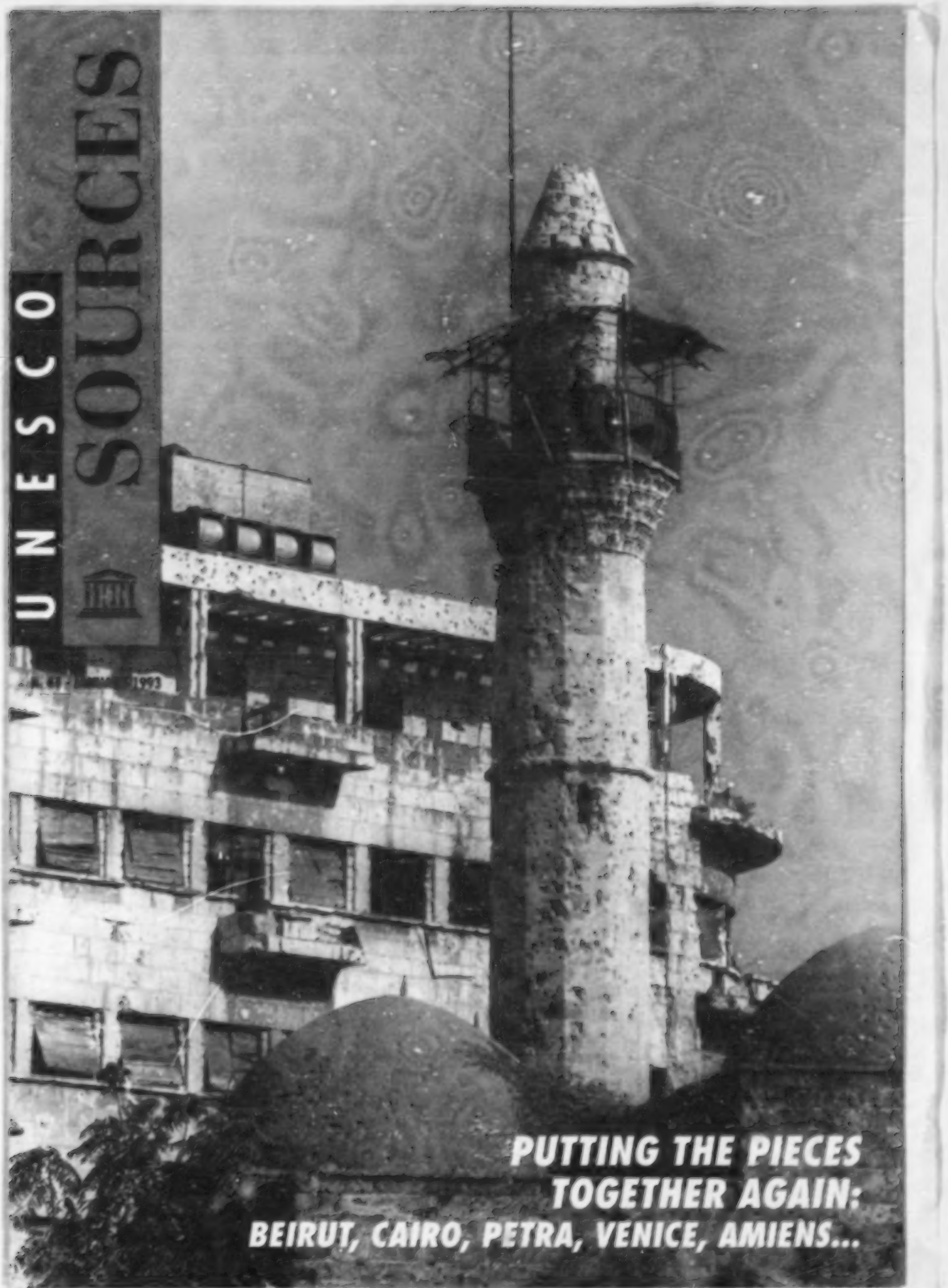
UNESCO SOURCES



PUTTING THE PIECES TOGETHER AGAIN: BEIRUT, CAIRO, PETRA, VENICE, AMIENS...

Readers, we have reserved this page for your comments, suggestions and criticisms. Consider it yours !

IN ALL SECTORS OF SOCIETY

Marcelina Rodrigues Fernandes
Director, Children's Village S.O.S. of Assomada
Santa Catarina
Cape Verde

I am grateful to receive your publication which I find particularly rich in a wide variety of materials. It is a precious tool for teaching and an excellent source of information. *UNESCO Sources* channels knowledge, values and behaviour in such a way that they can be applied at all levels and in all sectors of society.

I cannot imagine any institution which could make better use of your magazine than ours, housing as we do young people who are particularly thirsty for exactly this kind of knowledge and information.

ALREADY SOME 30 YEARS AGO

Jean Chevalier
Paris, France

A former UNESCO staff member who resigned after 15 years of service - and nonetheless wrote "The Dynamics of Peace" at the request of the Organization for its 40th anniversary - it is with particular joy that I read the editorial "Refounding" in SOURCES November (No. 42) issue.

You express perfectly and in a few words, what already some 30 years ago seemed to me a necessity - that of improving the programme, and methods for its executive, in order to carry out UNESCO's "ethical mission".

In spite of my venerable age, I continue to act, speak and write, in a way which, those many years ago, justified my taking the advice of René Cassin and joining the Secretariat.

PERTINENT THEMES

Clement Guiyome-Messago
Assistant Professor of Philosophy
University of Bangui
Central African Republic

I regret not having known your magazine earlier since it brings me great satisfaction : for the quality of the work you do and particularly for the diversity and choice of themes for your dossiers which always concern current problems pertinent to the evolution of our societies.

SUBJECTS OF CONCERN TO ALL OF US

Fatima Ribeiro
Maputo
Mozambique

In the few months since I have been receiving *Sources*, it has given me great satisfaction. I find your magazine very attractive, readable and full of interesting information, especially on protection of the environment, and preservation of the cultural heritage, both subjects which should concern all of us.

A NAGGING PROBLEM

Pierre Gorner
Journalism Student
Lille, France

Thank you for informing us about the very difficult conditions - according to the article, "Struggling for Life", in your November (No. 42) issue - facing the mass media in ex-Soviet Asia.

The crisis which reigns in that region illustrates most forcefully that freedom of information is not an automatic consequence of "democratization", either in spirit or the letter.

The habits and practices of governments, the vital needs of journalists and - often - the apathy and resignation of readers themselves who cannot and do not all change their positions overnight and by simple decree. Above all, what remains is the economic stranglehold, the realities of the marketplace. And, in this respect, the paroxysme reached in Central Asia should not hide the nagging problem, posed in a multitude of other countries where democracy has, theoretically, been in place for many years. Are we so sure that the iron law of market economics does not, little by little, erode freedom of information?

A MATTER OF COMMON SENSE

Ruiz Lopez
Teacher
Malaga (Spain)

Your article on sea level in the November issue devoted to islands, both surprised and alarmed me. I well understand that science is not yet omnipotent, thus cannot yet make predictions in this domain with exactitude. But, if this is so, why not heed the old saying: prevention is better than cure!

To avoid the worst tomorrow, even if it is only probable, by adopting appropriate conservative measures today, even if it means doing away with these measures in the case that science gradually proves them unnecessary. This is a simple matter of common sense.

HAPPY NEW YEAR 1993

The staff of UNESCO SOURCES extends warm wishes to all our readers for a Happy New Year 1993. We are grateful for your continuing interest and enthusiasm, and look forward to the same fruitful exchange of ideas and information during the year ahead.

SAVINGS ALL AROUND

Certain member states are late with their contributions: the Executive Board has decided that, for the implementation of the budget adopted by the last General Conference, UNESCO's expenses until the end of next year will be calibrated according to revenue.

In 1993, UNESCO will have to be prepared to spend 38.7 million dollars less than expected. This would take into account general austerity measures (6.2 million), lower staff costs (4 million) and, most notably, programme deferments/reductions worth 11.5 million dollars. This figure would have been higher - 17.5 million dollars - if not for a decision to try and find six million dollars of financing from outside the Organisation. What this all means is that, leaving aside staff expenses, UNESCO will have to prepare itself for the possibility of its 1993 programme budget being more than halved.

For the first time, UNESCO finds itself unable to plan its activities according to a predetermined income — and this when the Organisation is in mid-stream, half-way into its two-year programme. But this time, the problem has nothing to do with the withdrawal of the United States and Britain.

The departure of two of the biggest contributors triggered a budgetary crisis: UNESCO's resources were slashed by about one third. This time, it is a treasury crisis: it has been caused, purely and simply, by the tardiness of certain Member states in paying their contributions - especially the Eastern European members, many of which are in turmoil. Is the situation temporary? UNESCO is banking on contributions of the same order as those collected for 1992-93 in its preparation of the 1994-95 Programme and budget.

This crisis is far from unique: arrears due to UNESCO are minor compared to those owed to other specialist agencies within the United Nations system (the ILO, FAO, WHO) and, indeed, of the United Nations itself.

But paradoxically, and contrary to what happened in 1984-85, this crisis has actually provoked increased support for UNESCO. Apart, obviously, from those in Eastern Europe, the Member states are generally more forthcoming than before in their contributions. Some of the larger contributors have even speeded up payments in an attempt to reduce the treasury deficit. Still, delays in payment bring delays in action. Those activities which have been deferred will only be implemented as and when the money comes in.

René LEFORT

READEX
FICHE

Ignace Meo.

The cultural dimension of development.

A company turnaround.

Cover photo : UNESCO/B.Zanolin

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UNESCO SOURCES

BOOKS

KNOWING AND DOING: Literacy for Women

How should women be taught to read and write? Is a custom-made approach necessary? If so, what would be the ways for carrying it out? Above all, how can literacy help women reach their full potential, not least by increasing an awareness of their condition, their rights and responsibilities in society - in a word, empowering them? Krystyna Chlebowska, UNESCO specialist in literacy work for women, provides concrete answers to these questions for all

those *"involved in the difficult and often thankless task of teaching literacy to women as well as those who aren't yet convinced of the importance of the goal."* Through chapters on planning, consciousness-raising, the environment in which women live and learn, the programmes and their contents, course organization and literacy personnel, Chlebowska hammers home the point that literacy is the key to an education *"which is the surest way that women can acquire the knowledge, know-how, confidence and autonomy necessary to take control of their lives"*. She advocates a *"liberated literacy"* which goes beyond the simple reading and writing skills to include *"a realization of their conditions as well as how they have been dispossessed of their rights, authority, responsibilities and power"*.

● ***Knowing and Doing:*** *Literacy for Women, by Krystyna Chlebowska, UNESCO, 1992, 78 pp., 45 FF.*

PERIODICALS

THE INTERNATIONAL SOCIAL SCIENCE JOURNAL

The Americas: 1492-1992. Multiplicity of historical paths and determinants of development. On the occasion of the Fifth Centenary of Columbus' reaching the Continent (later named America) which had tragic consequences for local populations and civilizations but also was to be a landmark in the emergence of the modern world-system, the articles in this issue (No. 134, November 1992) discuss two interrelated problems: on the one hand, the specific historical trajectories followed by the major countries of North and South America; and, on the other, some of the transversal factors such as the colonial institutions, the environment, culture and religion, science and technology and impact of the modern world-system, which influenced the development of these societies.

MUSEUM
Friends of Museums: 650,000 Strong

A broad overview of Friends' Associations on three continents, the main dossier in this issue demonstrates clearly how they serve as stimulant and catalyst, creating vital links between the museum and the community. Starting with an article on the "World Federation of Friends of Museums and how it grew," eloquent examples from Canada, Brazil, France, Australia, the U.S., Mexico, the U.K., Cyprus and Italy describe ways in which Friends have helped to popularize the museum as an integral part of everyday life. "Indeed," writes Editor Marcia Lord, *"it may even be said that the explosion in museum attendance is in large measure due to the higher quality of services that Friends have helped many museums provide."* To further prove the point, the magazine's cover shows *El Buen Pastor*, an 18th century painting by Diego de Cuentos, restored through the efforts of the Association of the Friends of the National Museum of Virreinato, Mexico.

THE UNESCO COURIER
Exploring the Cosmos: From here to infinity.

An interview with Montreal-born astrophysicist Hubert Reeves, Director of Research at the French National Centre for Scientific Research (CNRS) introduces the January 1993 *Courier* which attempts to explain why human beings, from earliest times, looked to the stars for answers to their questions about the origin and nature of the universe. Articles probe the satellite era, remote sensing, take a look at "Mars in fact and fiction", and explore other aspects of humankind's current quest to conquer space. But, ask the editors, *"Will we be capable of learning from the mistakes we have made in our own little world, so that we can explore the infinites of space with serenity?"* On the cover: the Ulysses spacecraft shortly after being released from Space Shuttle Discovery in 1990 on a pioneering mission to survey the polar regions of the Sun.

COPYRIGHT BULLETIN

This issue (No. 2/1992) notably examines the legal aspects of "sound sampling", an established and growing practice involving the arrangement of an existing musical work so that a new work distinct from the original is created and becomes entitled, in turn, to copyright protection. It also presents some legal considerations of "digital sampling", and, as in each issue, reports on UNESCO activities, new books and documents, along with general news and information in the field.

RECORDS

MUSICAL SOURCES

A selection of 10 new recordings and extracts from 20 re-issues from the UNESCO Collection of Traditional Music, one of the most outstanding achievements in

UNESCO's programme for the preservation and revitalization of the intangible cultural heritage. The collection - in three series: "Music and Musicians of the World", "Anthology of Traditional Music" and "Traditional Music of Today" - has already reached its 55th title since its launching in 1988 with a new partner, AUVIDIS. These have received two major awards - the "Grand Prix" of the "Académie du disque français" (1989) and the "Grand Prix de l'Academie Charles Cros" (1990). Among the musical traditions on this CD are those (illustrated clockwise on the promotional poster above) of Mongolia, the Solomon Islands, Tibet, Pakistan, Cote d'Ivoire, China, Switzerland, and Argentina.
The choice of titles to appear in the Collection, created in 1961 in collaboration with the International Music Council (IMC), is entrusted to an Editorial Board in which UNESCO, the IMC and AUVIDIS are represented.

● ***Musical Sources,*** *UNESCO Collection/AUVIDIS 1992, Compact only, 52 FF.*

Publications and periodicals are on sale at the UNESCO Bookshop, or by order from UNESCO Publishing, 7 place de Fontenoy, 75352 Paris 07 SP, and in Member States through national distributors. Catalogue on request.

ANOTHER TYPE OF DEVELOPMENT

We have to be daring: the Member States are not looking for a timid report. We have to be provocative in a positive sense." Javier Perez de Cuellar, former Secretary General of the United Nations and now president of the World Commission on Culture and Development, made this statement on December 11 at a joint press conference with UNESCO's Director-General, Federico Mayor, at the Organisation's headquarters.

They noted that after the failure of numerous strategies and development projects, the need for another type of development - "*human, sustainable and interdependent*" - was now largely recognised.

The Commission will undertake an essential mission: to explore the crucial role which cultural factors play in the destiny of each society as, indeed, in the well-being of the individual. Mr Perez de Cuellar said culture consisted not only of the various arts but also science and technology. In other words, everything which makes up human culture. The Commission will present its report to the United Nations General Assembly and the UNESCO General Conference at the end of 1995.

C. M.

THE WORLD COMMISSION ON CULTURE AND DEVELOPMENT - MEMBERSHIP

Honorary members: H.R.H. Prince Talal Ibn Abdul Aziz Al Saud (Saudi Arabia), President of AGFUND (the Arab Gulf Programme for United Nations Development Organisations); Aung San Suu Kyi (Myanmar), Nobel Peace Prizewinner, International Simon Bolivar prize; Claude Levi-Strauss, anthropologist, member of the French Academy; Ilya Prigogine (Belgium), Nobel Prize for Chemistry; Derek Walcott, Caribbean poet, Nobel Prize for Literature.

Members: Claude Ake (Nigeria), development economist; Lourdes Arizpe Schlosser (Mexico), President of the International Union of Anthropologic and Ethnologic Sciences; Yoro K. Fall (Senegal), historian; Kurt Furgler (Switzerland), Vice President of the Club of Rome; Celso Furtado (Brazil), development economist; Niki Goulandris (Greece), specialist in ecology and culture; Mahbub ul Haq (Pakistan), economist; Ole Henrik Magga (Norway), linguist; Nikita Mikhalkov (Russia), film-maker; Chie Nakane, Vice President of the Japanese National Commission for UNESCO; Leila Takla (Egypt), lawyer; Elie Wiesel (American of Romanian origin), Nobel Peace Prizewinner.

SOMALIA: UNESCO MISSION SEEKS "REAL" SOLUTIONS

I got a terrible shock when I landed at Mogadishu," says Tai Afrik, literacy specialist. "*It's terrifying to see all those weapons all over the place. Even children of ten and twelve years are walking around loaded down with arms!*"

He and Jan de Bosch Kemper, an architect and colleague at UNESCO's regional office in Dakar, were part of a mission which visited Somalia from November 7 to 26, 1992.

The Somali capital has been without electricity and telephones for many months now. It is not unusual to find human and animal corpses lying beside mounds of rubbish.

All of the hotels have been seriously damaged. Members of the UNESCO mission stayed at the home of a Somali businessman to whom they paid $80 per room per night. Fourteen armed men stood guard; the house had already come under attack four times. Most of the food was provided by humanitarian organisations.

Mr. Afrik said the university, which he remembered from his visits in 1985 and 1987 as a jewel of a building, is now in ruins.

The centre of town, or what remains of it, is like a gaping sore. To travel from the south to the north - which are in the hands of enemy factions - the team had to be accompanied by a heavily armed escort.

Jan de Bosch Kemper was particularly struck by the total breakdown of law and order and the level of destitution in which the people live. The last time teachers were paid their monthly salary, it was reportedly worth three dollars.

Money is gleaned however and wherever possible, particularly from the international organisations.

But the mission also met volunteer teachers whose main concern is to give a minimum level of education to people who have nothing else.

JAN DE BOSCH KEMPER (Photo UNESCO/Ines Forbes).

The team visited primary "schools" set up by these teachers whose determination and devotion is in inverse proportion to the resources available to them.

Mr. de Bosch Kemper hopes UNESCO will encourage these initiatives by providing logistical support.

He emphasises the difficulty of creating "*islands of peace*" (see UNESCO Sources No. 42), which aim to set up schools in peaceful zones, in a world dominated by armed looters.

He believes that all humanitarian efforts are doomed to failure unless real solutions are found for the complete misery in which Somalians live.

Diomansi BOMBOTE

● "*I appeal strongly to the authorities in Myanmar to allow the Organisation to carry out its objectives concerning* ***AUNG SAN SUU KYI***" said UNESCO's Director-General, Federico Mayor on December 4 during his official visit to Australia. He was referring to a planned trip by himself and Barry Jones, President of UNESCO's Committee on Conventions and Recommendations. Mr. Mayor and Mr. Jones are to travel to Myanmar to check personally on the needs and demands of the Burmese opposition leader, who is currently under house arrest. Aung San Suu Kyi was awarded the Nobel Peace Prize in 1991 and UNESCO's Simon Bolivar Prize in 1992.

PUTTING THE PIECES TOGETHER AGAIN: BEIRUT, CAIRO, PETRA, VENICE, AMIENS ...

This month, Focus presents the second of a two-part series on urgent projects undertaken to protect the world's cultural heritage. In part one, we looked at the plight of Dubrovnik. This month, we turn our attention to: the Giza Plateau, where a new plan has been drawn up to help the growing number of tourists, archeologists and local people derive greater benefit from the riches of the Pyramids and the Sphinx (p. 7-8); a similar plan of action has been undertaken at Petra (p. 10); the centre of Beirut is being completely rebuilt, with an emphasis on preserving the ancient monuments (p. 9); Venice, which is surrounded and traversed by water, is intimately affected by the ecosystem of which it is part (p. 11-14); and the famous Gothic cathedral at Amiens is getting a facelift, thanks to a revolutionary new laser treatment never before used on a monument (pp. 15-16).

In 1992, UNESCO took steps to assist the Egyptian Antiquities Organisation with the long term conservation of the Giza Plateau, site of the Pyramids and Sphinx. The Conservation Practice, the UK-based architects and planners, were commissioned to prepare a strategic management plan for the entire World Heritage Site.

There is a policy to try and increase overseas tourists to Giza by a factor of ten. This means an increase from about a million to ten million people per year. The increase in visitors will encourage more services, thereby increasing the local population. The aim of the plan is to protect archeological works while enhancing the touristic experience and providing the local population with greater potential to benefit from changes.

In 1920, there were no significant villages adjacent to the Plateau. Since then, the villages of Kafret el Gabal and Nazlet el Semmane have grown into small towns. Refuse is largely uncollected and mounds beside the villages, ever closer to the Plateau.

The population of the two villages together numbers some 250,000 people, the majority of whom earn their living from tourism. Early proposals called for the resettlement of the villages. However, it has been suggested by UNESCO that this would not be very practical. Recommendations have been made for a socio-economic study to be done to avoid negative impact on the local population.

Unfortunately, the archaeology is being damaged by the very people whose livelihood depends on the visitors, such as the camel drivers; the animals' constant passage over the more sensitive areas does serious damage. Their excreta directly affects the limestone from which the monuments are constructed; they must be excluded from the inner part of the site.

There is an urgent need to ensure that camels and horses are controlled and the plan will be recommending that they be placed adjacent to one of three new tourist information centres. In this way, the visitors can enjoy the experience of riding the animals across the desert, with the Pyramids as a scenic backdrop, without causing any damage to the archaeology in progress.

DAMAGE BY TOURISM

Most visitors arrive by coach. Parking occupies greater and greater areas, ever closer to the monuments. It is common to see 50 or more coaches parked around the Pyramids, all with their engines running despite regulations to control pollution. The coach drivers ignore the regulations as it would mean turning off the air-conditioning and lead to complaints by the tourists and fewer tips for the drivers and guides.

The visitors also bring rubbish. Staff working on the Giza Plateau manage to keep the main public areas clean, but around the corners and across the camel trails, there is windblown debris, discarded cans and the bleached bones of dead animals.

Policing the Plateau is a major problem as officers cannot communicate with each other. This is particularly important now that the monuments have been singled out as targets for terrorism. The role of the police is to protect the visitors and monuments; both are fragile. The delicate nature of the monuments cannot be over-emphasised. For example, the setting out marks for the Pyramids, carved in the natural stone surface of the Plateau by the original builders, can never be recreated if worn away.

The tourists also need to be directed with more care. There needs to be new fencing; the existing barbed wire is inadequate and largely collapsed. It doesn't matter how hard the guards try to stop people climbing on the Pyramids, they will do so as long as they have access.

For many years, the Sphinx, the Pyramids and tombs were seen as places of plunder; objects from the Giza Plateau are now scattered in museums all over the world.

Further problems develop when excavation of new sites produces finds. These need to be processed, catalogued and stored. While the quality of excavation has increased remarkably over the last fifteen years, the standards of cataloguing and storage sadly have not. The existing store building situated below the bluff of the Plateau needs to be upgraded urgently.

The monuments themselves also need to be cared for. Fabric recording,

systematic maintenance and the monitoring of decay still need to be carried out on the Plateau.

How can improvement be achieved? The first step in the masterplan must be the separation of the site from the neighbouring areas. The site needs defined boundaries. In some cases, these boundaries already exist. If you walk across the Plateau out to the edge beyond the Menkaura Pyramid, you can find the original terminos boundary walls. Here some controlled archaeology needs to be carried out to establish how much of these walls still exist. It may be that by simply removing the sand from one side, we will already have the boundary that was provided there so many thousands of years ago.

The vehicle route proposed around the outer edge of the Plateau will form an outer buffer zone, intended to define the site, restrict access to camels and unwanted vehicles and to serve the three new visitor centres. From the entrance by the Mena House Hotel to the Sphinx, the road already exists. Much of it is deep in rubbish; the clearing and widening of this route would be a comparatively easy task. The road would then run round to the south, past the village of Kafret el Gabal in a circle across the desert, to the site of the desert visitor centre, giving a continuous series of changing views of the Pyramids on the skyline.

From each visitor centre, the public will be able to experience a different aspect of the Plateau - its development, archaeology, history and the story it has to tell.

The first centre, near the Mena House Hotel, we have called the Khufu Centre. This would present the visitor with the story of the Pyramids, why they were built and the fact that they represent three generations: grandfather, father, son and their immediate court. Located at a low level, the building would be landscaped into the edge of the Plateau. The centre would explain how the Pyramids were built, and the relationship between the gods, the spirit of the pharaohs and their court retinue, all of whom are buried around them. The masterplan also recommends that this building provide a new home for Khafra's boat. The concept of the spirit of the king coming out of the Pyramids and travelling with his gods across the sky in this boat to view his kingdom is something that very few of the visitors understand.

The next visitor centre will be located at Sphinx square and would concentrate on the Sphinx, the guardian of the site, a god in his own right. The new center would provide facilities that nowadays the tourist expects. For example, the sound and light show needs to be upgraded; the existing soundtrack is very dated and the light show could be much more sophisticated. Using technology such as laser projectors, images could be cast onto the face of the Pyramids to give an impression of the mystery and the spiritual nature of the site.

RIDE THE CAMELS

The third visitor centre we have called the Desert Gate. Here, the story will concentrate on the discovery of the Pyramids; the mystery and magic of the Pyramids; the idea of treasure and exploration. From this viewpoint, the Pyramids can still be appreciated in their desert setting. It will also give the visitors an opportunity to ride the camels and to learn about the desert and the people who live in and travel through it.

The information boards around the Plateau need to be improved and made more informative. What exactly are we looking at? When you go inside these smaller tombs, again the presentation and the signing needs to be dramatically improved and coordinated.

The ticketing policy needs to be investigated. At the moment, the cost of coming into the Plateau bears no relation to the importance of what you are seeing. It is actually dearer to have a sandwich in the hotel at the bottom of the road than it is to go in and visit the Pyramids.

Finally, it must not be forgotten that the World Heritage Site at Giza is only part of a much larger site, a "necropolis" that extends down the Nile valley as far as Saqqara. These areas are being visited by more and more tourists and are becoming more and more eroded. The entire site needs to be defined, perhaps as a much larger World Heritage Site. This is an area that is worthy of additional study to ensure that the strategic aspects are considered together and that there is a common thread to their management.

Daryl FOWLER,
The Conservation Practice, U.K.

EARTHQUAKE DAMAGE

On October 12th, at 3:30 in the afternoon, the Cairo earthquake struck. With a force of 5.9 on the Richter Scale, and an epicentre at El Fayum, 30 kilometres from Cairo, the quake was to leave 550 people dead and countless numbers homeless.

We know that 150 world class monuments suffered. Many minarets were shaken and, in many cases, they have actually broken away from the parent structure lower down, leaving them standing but precarious.

All the mosques exhibited the same pattern of structural failure. The openings in the massive walls had acted as dampers and crack inducers. It is now clear that the earthquake motion appeared to be largely what is called "vertical". This has meant that there was very little broken glass, very few objects fell from bookshelves, or were flung from the shelves of supermarkets.

An inspection of the damage visible to the mosques supports the proposition that the earthquake was high frequency and short duration. Most of the damage has occurred to the mosques' structure, rather than the minarets themselves. The most frequently observed damage was of vertical cracks, occurring above an arch and extending to the sill of window openings and then on upwards.

What has happened is that the arch and the window openings have acted as crack inducers and have been able to ensure that the energy was absorbed by the structure. Particularly interesting is a pattern of failure between the minaret and the mosque that occurred in almost every mosque. The differential stiffness and the mass of the different elements has given rise to a point of weakness at this junction. The minarets had clearly whipped out and back, tearing away from the body of the building.

However, the lime mortar was very tolerant. Minor walls fell and, in many cases, the tops of the minarets collapsed, at least in part. It is important to be thankful, however. If the earthquake had been of a slightly different type, with a more horizontal movement, then many more buildings would have fallen, particularly those of derelict structures or structures that were already seriously weakened.

A FUTURE FOR BEIRUT'S PAST

Downtown Beirut, the old city, is about to undergo massive reconstruction. But how can its archaeological treasures be integrated, and given new life in a renovated city?

The historic centre of Beirut, much admired in 1975, is in ruins today, almost bombed out of existence, gutted with shell-craters. According to Hares Boustany, archaeological advisor to the Hariri Foundation for Culture and Higher Education (founded by Rafic Hariri, business executive and now Lebanese Prime Minister), about 20% has been completely destroyed, and the rest severely damaged.

Still, a large-scale urban development scheme for rehabilitation of the area which covers several square kilometers (for the most part office buildings), has raised many doubts and questions. A number of proprietors have criticized the compensation being offered them. It has been proposed that in the case of expropriation, owners will be compensated with shares in a real estate agency. Criticizing the proposal on Lebanese television, a spokesman for the owners attacked this solution *"which forces them to exchange property for near worthless shares in order to construct a city without a soul."*

GOLDEN OPPORTUNITY

The conception of the scheme as put forward by the Council for Reconstruction and Development (CDR, a public company) is itself controversial.

It is accused of seeking to transform the historic centre of Beirut into a row of skyscrapers. Some, like the urban sociologist, Professor Nabil Beyhum, also fear the social implications of the plan - an opulent business centre cut off from the rest of the city, creating a society at two speeds of development.

Others, however, argue that reconstructing downtown Beirut the way it was 20 years ago with its endless traffic jams is not a solution either. For them, Beirut now has the golden opportunity of endowing itself with a modern centre adapted to its needs. Given the great number of buildings in ruin, however, and the rationale of economic and urban exigencies, it appears impossible to opt for simple, piecemeal rehabilitation, house by house. Fortunately, the situation is flexible and the plan has already undergone several revisions.

In any case, the authorities have made a point of demonstrating keen interest in the archaeological treasures. In this respect, they have asked UNESCO to help save this precious heritage. The Hariri Foundation has already pledged one million dollars to cover costs of the project over the next two years.

Other contributions are expected, financial or in kind. The French Institute for Middle East Archaeology (IFAPO), for instance, is sending a team. A request has also been made to the UN Development Programme (UNDP) for an initial sum of $300,000.

Concerning the architectural heritage, Mr. Boustany was reassuring: *"All damaged buildings that have remained standing and have historical, artistic or architectural significance will be restored."* He cited, notably, the City Hall, the Municipal Theatre and the Roman Baths.

He also cites archaeological treasures *"thought to exist,"* in particular the Basilica (seat of the Roman government), the Odeon and two Roman forums.

"Beirut is in fact a city full of rich archaeological deposits," explained UNESCO architect, Wolf Tochtermann. *"We assume there is a Phoenician city under the Roman city, itself underneath the Ottoman city. What we actually see best is the city, remodeled by the French during the 1920s and 1930s, inspired by the Haussman model and influenced by the architectural styles of the period."*

It would be more exact, however, to say *"what we saw..."* For today very little remains to be seen. Tochtermann is appaled by the extent of damage to the archaeological heritage. All the more reason, he insists, to preserve what is left.

In September 1992, the CDR and UNESCO signed a memorandum concerning the historic aspects of the city centre and the National Museum. A first step will consist of tests to be carried out before diggins begin, and the drawing up of an inventory of what is known about the city's archaeological past.

"We know more or less where the Cardo was located, that is the intersection of the two axes which formed the base of the Roman city. On the other hand, we also know there was a prestigious law school at the time of the Romans," Tochtermann added.

"We think we know where it is, without being completely sure. Since the area is heavily built-up, excavations have never been possible."

"We must go further," insists George Zouain, responsible for coordinating UNESCO's action for Lebanon. Stressing the pragmatic approach of the Organization, he said: *"Archaeological rehabilitation must be an integral part of urban planning, with the builders assuming responsibility for costs incurred."*

It is less a question of preserving historical monuments like so many small architectural museums, than of enabling old Beirut to live in the city of tomorrow.

N. M.
(with *L'Orient le Jour*, Beirut)

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THROUGH THE PASS

A UNESCO mission was in Jordan recently to evaluate Petra's tourism potential. How to move from the Indiana Jones epic to the reality of cultural tourism.

Indiana Jones 3 shows the archeologist-adventurer galloping into the sombre Siq pass behind which appears the magnificent El Khazneh monument. In real life, tourists are also taken to the canyon on horseback to admire this tomb of Hellenistic inspiration, a jewel in Jordan's Petra site. The reality, however, is radically different from the film - the horses are walked (less adventurous but more prudent!) and the tourists, most of them old and unsure of their mounts, kick up a huge amount of dust. So intent on remaining in the saddle are they that they appear oblivious to their voyage of discovery and the beauty of the canyon they are passing through. Those who choose to walk through the narrow passage are forced to wear anti-dust masks and the scene seems almost surreal. The dust stains and damages the rockface, while the horses' hooves destroy the archeology.

This was one of the problems we had to examine in our capacity as French cultural tourism experts invited to take part in UNESCO's multi-disciplinary mission in October, set up at the request of the Petra National Foundation. Its aim was to identify the problems facing Petra - the ancient capital of the Nabataean kingdom - and suggest ways of developing balanced tourism.

Led by British architect, Barry Lane, the mission brought together seven experts from the fields of tourism, archeology, architecture, hydrology, environment, anthropology and geomorphology.

THE WATER/DESERT DYAD

Water was essential to the city's prosperity two thousand years ago and played a pivotal role in the region's history. It was also crucial to the Nabataean culture, in which ablution was the main method of purification.

Meanwhile, the desert, traversed by caravans that made the city rich, was a crossroads. This is evident from the diversity of architectural influences and the cultural and religious creativity of the Nabataeans (for example, their ancestor worship and the representation of the divinities). The water/desert dyad is seen as fundamental to the site's identity and should be equally fundamental to tourism. In a way, it also symbolises the nation itself, most of whose territory is arid but which bears the name of a river (the Jordan).

Jordan, whose second source of foreign exchange is tourism, realised immediately that it should not kill the goose that laid the

golden egg. In economic terms, not to mention in terms of its importance to cultural heritage, Petra is a capital to be preserved - particularly if high quality tourism is to be maintained.

However, there are a number of problems which must be overcome. These include soil erosion, damage to monuments, flooding, the proliferation of vendors, the theft of archeological objects, the lack of organisation in neighbouring villages - even the absence of toilets for tourists. The delegation's first suggestion was to create a single body which could deal with these diverse problems.

In general, we feel the area's cultural and touristic wealth is under-exploited. At present, the number of foreign visitors per day is about 500-600. There is talk of doubling that figure in a year, but given the lack of infrastructure, such growth cannot be envisaged within five years. It is also advisable to limit development and evaluate its impact continually. This applies particularly to the hotel trade, which is very rudimentary for the moment (130 beds). Four hotels are to be built in the area but, unfortunately, they risk damaging the aesthetics of the landscape and, worse still, polluting the main sources of water. These hotels would add 772 beds.

It is also necessary to hike the entrance fee to Petra for foreigners. At seven French francs (about US$1.50), it is much too low. Raising it to 35 francs (US$7.00) seems easily feasible.

To generate more revenue, tourists could spend more time at the site. Often, they stay for only half a day, which does not leave them much time to spend money or appreciate the beauty of the site they are visiting. It is necessary to marry culture and nature, the monuments and the magnificent landscape they are part of: trekking, as well as visits to the Bedouins and to the archeological centres should be arranged. The authorities have already set aside 26,000 hectares of natural and archeological parkland where these activities could be carried out.

FROM HORSES TO THE MINIBUS

Petra's small museum has been expanded, sign-posts installed, and an information centre and guides set up. UNESCO has a fundamental role to play in the training of local people, who should be the first to benefit from the development of the site. Despite the drawbacks of horses, we feel that the money generated by hiring them out cannot be scrapped at a stroke without compensation for the local people. They should be employed as guides or park rangers. They should also be given work with companies which would run minibuses to drive tourists to and from their hotels.

An exhibition recording how the Nabataeans irrigated and cultivated their land two thousand years ago would generate interest and income. Petra could thus be seen not only as a sepulcral relic but as what it really was - a bustling and prosperous city.

Christian ASSANTE and Claire JOUFFRAY

LAGOON BLUES

The most famous historic city in the world is in trouble. The lagoon, with which Venice shares a symbiotic relationship, has become polluted, and it is wreaking its revenge.

The image of Venice has been damaged. The city is like a gem placed in a jewel box which, itself, is no longer very pretty. This jewel box is the lagoon, a vast expanse of water (see diagram next page), with its marshes and islands. When Venice looks into the mirror, it's hard to say whether she is still the prettiest of all.

The lagoon has three enemies as Venetian scholar Christoforo Sabbadino liked to point out, already in the 16th century: the sea, the rivers and men. With regard to the latter, even he did not realise how much time would prove him right.

Some 10 years ago, Michel Batisse, then chief of the science sector at UNESCO, and Professor Augusto Ghetti, President of a scientific committee *"for the defense of Venice"*, were already sounding the alarm over *"the proliferation and increasing intensity of the threats"* (Nature and Resources, UNESCO, Oct-Dec 1983), and this state of affairs considerably worsened during the decade.

Pollution is taking an ever greater toll on the quality of life. In summer, for instance, the smell is intolerable and insects swarm to such an extent that, in 1990, the airport had to be temporarily closed down.

THE MONSTER IN THE LAGOON

In the dark waters lives a fearsome predator which is the cause of all the trouble: seaweed. And not just any old seaweed. This one is called *Ulva rigida* and can grow to a width of one metre.

In a University of Venice laboratory, on a small piazza, a technician lifts a green slice of the culprit from a pail of water. The plant, also called *"sea lettuce,"* looks innocent enough, but it is a veritable monster.

"The tests we've done are amazing," said Nicoletta Riccardi. *"This plant is capable of resisting extreme temperature and light variations. Its growth is astonishing, and it can reproduce either by dissemination of spores or simply by breaking itself into pieces which then form new plants."*

What causes the algae to proliferate? In the first place, pollution, because these gluttons feed mainly on nitrate compounds. The ensuing phenomenon is called eutrophisation. In the summer, the bottom of the lagoon turns black. Everything combines for the worst: water temperature and light increase, the algae develop rapidly, then die and decompose. This leads to a kind of suffocation called anoxia: the oxygen rate in the water, indispensable for all living organisms, drops towards zero.

The laboratory is participating in an important research project on the lagoon ecosystem under the aegis of UNESCO and Italy. Launched in the spring of 1991, it is, at least for a first phase, nearing completion.

Over 2.6 billion lira ($2.3 million) were allocated to the project from the Italian government. Curiously, as Pierre Lasserre (France), scientific coordinator for the international undertaking, said, *"this is the first time in the history of Venice that a coherent study has been devoted to the lagoon, mobilizing scientists from Italy and other European countries."*

In a report published last September, participants from the University of Venice and Padua, as well as the Plymouth Marine Laboratory (U.K.), are categorical: *"From the 1980s the Ulva rigida became abundant in the greater part of the lagoon"*, with a *"dramatic influence on the physical, chemical and biological characteristics of the lagoon. The effect of the decomposition of the huge biomass of Ulva on the biomass and structure of benthic fauna,"* they wrote, *"is clear."*

In another part of the lab, a young girl leans over a tub of blackish muck scooped the day before from the bottom of the lagoon. With a pair of tweezers, she lifts out various components. The shellfish she extracts from the repulsive mass, cut short any urge to dine afterwards on *Spaghetti alle vongole* (spaghetti with small clams). *"The results (see page 13) are conclusive,"* said the biologist Davide Tagliapietra. *"In the summer, virtually all life disappears from the bottom of this part of the lagoon. The only creatures which survive are the larvae of a certain species of mosquito which later invade the city."* This young and enthusiastic scientist, like a dozen of his colleagues, benefitted from a UNESCO grant to do this research.

You can find just about anything in the lagoon: residue from agricultural fertilizers which provides the natural food for the *Ulva rigida*, chemical polluants, hydrocarbons, insecticides, chlorinated wastes, etc. The Institute of Marine Biology (IBM) of the Italian National Centre for Scientific Research, investigated this aspect.

Without denying the gravity of the situation, Valentino Fossato, a chemist at the Institute, said, however, that *"the first tests on chemical pollution of the lagoon indicate that the situation is not as dramatic as we expected."* What saves it is renewal of water by the tides which are much stronger than in other parts of the Mediterranean. Moreover, *"the animals we examined seem to be suffering less than we feared."*

Another surprise - of all the locales under study: those neighbouring the industrial zone, agricultural areas or the city, the scientists found that Venice itself was the most affected by oil pollution - because of motorboats operating on diesel fuel.

(Continued on page 14)

THE VENETIAN LAGOON

This map clearly shows that Venice is a very small part of a vast ecosystem upon which it intimately depends: the lagoon (about 50 km long and 12 km wide).

Neither sea nor lake, the lagoon which is naturally unstable, has been considerably transformed by human activity over the last centuries. In the past 100 years alone, its surface area has been reduced by 30 per cent.

Moreover, rivers which flow into it were deviated at the time of the Republic of Venice. Fortunately, for the city of Venice, three wide openings - the Lido, Malamocco and Chioggia mouths - remain intact, enabling the ebb and flow of daily tides to renew about half the water.

UNESCO's research study is being carried out in an area extending from the "Lido" mouth up towards Burano and Torcello in the eastern part of the Lagoon, and in a small semi-enclosed body of brackish water (a "palude" - in this case the Palude della Rosa - indicated here within the heavy outline). This area has, in fact, retained the original characteristics of the lagoon, notably because of the rivers which flow into it from the North.

These waters, therefore, present a "range of salinity" from almost fresh to salt water at the opening to the sea, and comprise contrasting elements, particularly rich for data analysis.

The lagoon is very shallow. Large navigation channels have been dredged out to allow for the passage of passenger and cargo ships.

The one on the left, from Malamocco to Marghera, has been nicknamed "the oil channel" since it is used mainly by oil tankers. Its dredging in 1968 caused further degradation to the lagoon, altering its morphology, contributing to erosion and modifying currents.

LA PALUDE DELLA ROSA
(Source: UNESCO/Department of Environment Sciences, University of Venice).

THE KILLER ...

Zones in red indicate the massive presence of the giant algae, *Ulva Rigida*. Rosettes designate UNESCO observation stations.

The heavy concentration of the algae in the northern part of the Palude della Rosa (attaining 8 kg/m²) is directly linked to wastes, especially agricultural fertilizers upon which the algae feed, that wash into the area through natural drainage.

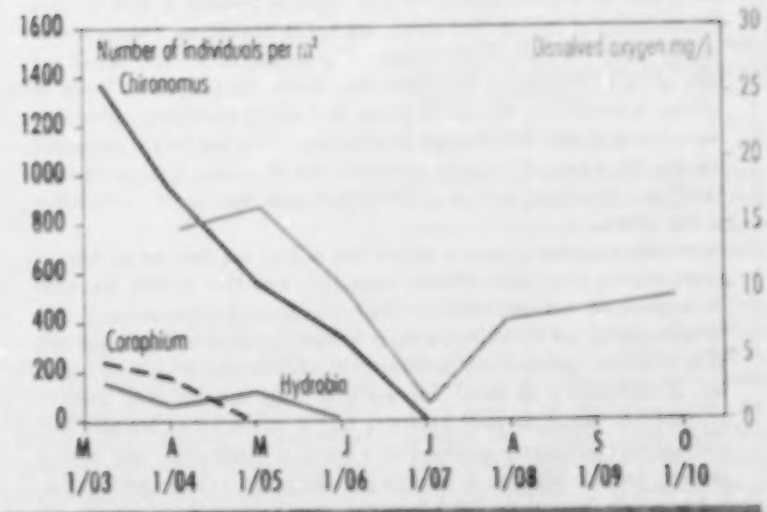
The southern part is also affected, but less so, probably because dominant winds and currents from the North push the algae in that direction where part of them end up in a kind of *cul-de-sac*.

... ALGAE

At this spot (circled on the map above), particularly exposed to the proliferation of algae, we see the dramatic fall of oxygen levels in water during the summer when the *Ulva* proliferate with astonishing rapidity, die and decay.

The small animals under study on the surface of sediments, disappear. But at the end of summer, life resumes. During other seasons, the *Ulva* contribute to the oxygenation of the water, and may even perform the function of filter.

Chironomus is the larva of a mosquito, *Hydrobia* is a gastropod, and *Corophium*, a small shellfish. Only *Chironomus* larvae, very resistant to anoxia, survive. Their population is much higher and their hemoglobin enables them to resist with less oxygen. Their disappearance in the spring can be explained, in fact, by their metamorphosis and subsequent flight.



EVOLUTION OF THE LEVEL OF DISSOLVED OXYGEN AND THE POPULATION OF SMALL ANIMALS, AT ONE OF THE OBSERVATION POINTS, FROM MARCH TO OCTOBER 1992 (Source: Idem).

(cont'd from page 13)

It's here that the obstacles facing any real prevention of pollution are the most apparent, including, among others, those of a cultural and economic nature. Cultural, because, contemplating the rubbish floating in the Grand Canal, its hard to tell if the Venetians themselves understand and love their lagoon. Economic, because it is not easy to prohibit diesel motors and taxis that provoke waves which jeopardize the city's very foundations. It's also difficult to explain to farmers in the North that they must cut down on fertilizers, or to prevent detergents and other soaps from seeping directly into the lagoon or into the waterways that feed it.

A major effort has been made with regard to wastes from the industrial zone. Still, among the many consequences of human activity, soil erosion, aggravated by a gradual sinking of the lagoon floor during the 20th century, is damaging and even causing the collapse of many buildings.

The subsidence of Venice is also a principal cause of floods due to tides of exceptional amplitude, the *acque alte* (a high water mark of 1.05 m today would correspond to one of 80 cm at the beginning of the century). On average each year between 1966 and 1969, in fact, the *acque alte* exceeded the 80 cm mark 54 times, compared to an average four times for the years 1920 to 1923!

The UNESCO project is part of a vast ensemble of research endeavours pursued since the 1973 "Law on Venice" sought to protect the lagoon, notably through a major financial effort on the part of government.

UNESCO, for its part, coordinated the work of an astonishing number of teams: the University of Padua helped elaborate mathematical models relating to growth of the algae; the University of Venice studied the animal communities in sediment; the IBM gauged the gravity of pollution, and along with the Plymouth Marine Laboratory, carried out a *check-up* of living organisms such as fish, shell-fish, etc.

Three teams from the French National Centre for Scientific Research (CNRS) participated: the Oceanographic Observatory in Roscoff, along with scientists from the IBM, studied nutrients, oxygen and plankton, a team from Montrouge investigated sediments suspended in water, and a third, in Montpellier, concentrated on the enzymatic activities in sediments which influence their biodegradation potential.

All of the scientists pointed out the unavoidably partial nature of their research results. For the moment it is simply not possible to apply these conclusions to the rest of the lagoon or to all periods in time. The situation involving the algae, for instance, improved during the summer of 1992 for reasons which are still unclear. Was it a short-term amelioration or does it indicate a tendency which may be confirmed in the years to come? Whatever, the specialists consider it reason enough to continue their work and even to broaden their efforts in time and space.

VENICE IS NOT A MUSEUM

Solutions to the problems of Venice proposed by the scientists range from sewage-treatment stations to a pipeline to avoid the passage of oil tankers. They frown on the idea of new construction schemes like further widening and deepening of the mouths of the lagoon (for the purpose of controlling tides and floods), by insisting on the environmental dangers of such works.

Pierre Lasserre considers that, in any case, *"we must safeguard the integrity of the lagoon. Venice must not be turned into a museum, with the illusion that it can be preserved independent of the lagoon. Venice must live its own life,"* he explained. *"and we scientists must never lose sight of the fact that we are working in a magical place."*

Angelo Marzollo agrees completely. The one who, for UNESCO, spun the web of laboratories, is a native Venetian.

Between a lecture to high school students and an interministerial meeting, he took the time to explain to *Sources* how this project turned out to be *"only a small part"* of UNESCO's original plan for the study and protection of the lagoon in its entirety. *"In the beginning,"* he said, *"there was the UNESCO appeal for the safeguard of this cultural jewel (see box). The link between world heritage and the environment came later."*

The tireless Marzollo is, nevertheless, happy: he has just received approval from the Italian government for a study, this time, on Venice's inner canals.

The two year project, will be carried out by UNESCO and financed through a 900 million lire Funds-in-Trust agreement with the Italian government. The canals are judged to be in a critical situation, thus contributing to the degradation of the foundations of the city.

The project aims mainly at building models necessary to draw up a comprehensive plan for pollution control, dredging or excavation.

Thus scientific research is moving ever closer to the life of Venice, not only to the monuments responsible for her beauty, but also to the people who keep the city alive.

Nicolas MICHAUX
Venice

SAVE VENICE !

Shortly after the dramatic floods which struck Venice on November 4, 1966, the then Director-General of UNESCO, René Maheu, launched an international campaign to save the city (along with Florence, also devastated by the deluge). In 1969, UNESCO and Italy, set up an International Consultative Committee for the Safeguard of Venice. In addition to coordinating the over 30 private fund-raising committees constituted in response to its appeal, UNESCO carried out inventories: a first took stock of palaces and churches (400 palaces, 130 churches or convents, and 20 schools), a second created a 16,000 card index listing works of art belonging to public buildings with a description of their condition.

"It was also a question of bringing the city back to life," said Maria Teresa Rubin de Cervin, who was in charge of UNESCO's Venice Office from 1974 to 1990. She recalls the dance festivals and photo exhibitions (the Palazzo Fortuny has since become a centre for photography), and the pioneering course in stone restoration, held biennially since 1971. All of these operations were carried out in close collaboration with national committees, of which those in the United States and Great Britain were particularly active.

The local press recently lamented the slowing down of these activities. In reality, however, and while momentum it not what it was a quarter of a century ago, many activities continue, thanks in large part to voluntary committees. *"We can't stop just like that,"* exclaimed Lady Clarke of the British Committee, stressing the need to *"cooperate with UNESCO"*. She told *Sources* that *"contributions continue to arrive,"* and that her association *"has just made new commitments,"* notably for the restoration of two churches.

A RAINBOW-COLOURED MIRACLE

One of the sites on UNESCO's World Heritage List, the Cathedral of Amiens, is recovering its youth with the aid of a revolutionary laser-based process.

The Cathedral of Amiens in northern France is studied in universities worldwide as the model of European Gothic architecture. The relative speed of its construction in the thirteenth century (it took some sixty years to build) gave it a particularly uniform quality. It represents the perfection of the pure Gothic style; after the completion of this astonishingly graceful cathedral, no other cathedral was built on such a scale in France. It has survived wars and revolutions, remaining virtually intact. For this reason, it became, in 1981, the first Gothic cathedral to be placed on the UNESCO World Heritage List.

Scholars in all disciplines have good reasons for turning their attention to the cathedral -- and not just because of its unique architecture or the region's particularly rich history. Their new source of interest is a machine which looks something like a big fridge equipped with a jointed arm. For several weeks now, this rather odd apparatus has been in use in the restoration of the cathedral -- the first time ever it has been used on a historic monument -- and the initial results are surpassing all expectations.

DESCALING THE STONE

The machine, which is still in its prototype stage, directs a laser beam at the stone. A faint glimmer of light, a crackling sound and the accumulated grime of decades is reduced to dust. The precision of the operation is astonishing since, under the black layer of dirt, the micrometric film secreted by the stone (the scale) remains undisturbed. The stone emerges spotless, even in the most inaccessible nooks and crannies. A ray of light, guided by a system of mirrors, creates a tiny shock wave which spreads through the layer of dirt, breaking it up. The pulses are of very brief duration (a few nanoseconds) and their frequency can be adjusted. This allows for play in the intensity of the beam.

Initial results would suggest that this technique, known as photon descaling, has many advantages over other, more familiar processes for removing urban pollution from buildings. Cleaning with water causes infiltrations which are harmful to the stone. The process is even more harmful if it is carried out under pressure, when there is the added danger of pieces of stone splitting off or of surface salts being forced into the stone.

Meanwhile, the process of microsandblasting can cause abrasion. Chemicals are either slow-acting and difficult to use or else they are extremely corrosive.

The laser is a recent invention (1960) which is now in widespread use. It enables us to listen to compact discs and read bar codes. Lasers are employed in industry (particularly for cutting and welding), space, defence (in target-seeking, for example), telecommunications and medicine. This, however, is the first time that it has been used to "descale" a historic monument.

The first public demonstration of the prototype, developed by a small French company, was held in June on the occasion of the twentieth anniversary of UNESCO's World Heritage Convention. The French government laboratory for research on historic monuments had earlier conducted a series of tests, the results of which were excellent, even in cases where the use of other methods would have been problematic because of the fragile nature of the underlying substance (very soft materials such as plaster or damaged stone).

Nevertheless, says Geneviève Orial, who is in charge of the tests, the laser is not a panacea and does not replace techniques like microsandblasting, at least not at this stage of its development. It does not work against moss and lichen, two of the most common ills affecting monuments, particularly in the tropics. Tests are still being carried out to check that the laser does not detach flakes of paint. Further tests are planned on other materials (wood, fabric, metals), but initial results are promising.

Another problem is that the machine is bulky although the manufacturers hope to reduce its initial weight of 250kg to about 40kg, and its jointed arm could be made easier to manipulate. It is very expensive, costing 1.8 million francs, but the price would obviously be reduced if it went into mass production.

On the other hand, the machine is extremely cheap to run, costing only 20 francs per hour due its very low electricity consumption (other types of cleaning can cost several thousand francs per hour). The laser is also very simple to operate.

In Amiens, work has just started on the Western facade, which is the most highly decorative. A hidden aspect, lost under the dirt, is being brought to light, namely, the polychrome decoration. Traces of paint, apparently quite extensive, are to be found virtually everywhere.

FORGOTTEN COLOURS

The façades of the Gothic cathedrals were, in fact, painted. Golds, blues and reds made the statues of the saints vibrant and brought the edifying frescoes to life - something which is generally forgotten today.

Frédéric Thorel, Amiens' deputy mayor responsible for culture, is enthusiastic about the rediscovery: *"The cathedrals were places of worship but they were also books open to society. For centuries, monuments and even city centres have been reduced to a single colour. Why?"* Then he drops a bombshell: *"Why shouldn't we restore the polychrome decoration of the main doorway, so that it is just like it was in the Middle Ages? Isn't a monochrome cathedral a sort of falsification of history?"*

Mr Thorel does not intend to make any final decision on the matter, and the town does not, in any case, have such authority since the cathedral belongs to the State. Nevertheless, he insists that *"the issue should not be dodged"*. Amiens is hoping to attract 500,000 visitors in 1995. A "multi-coloured" cathedral could boost that number considerably.

Mr. Thorel is also confident that an operation of this sort would not infringe on the terms of the Venice Charter (1964), which recommends care in matters of restoration.

Several specialists clearly do not share this view. Stephen Murray, an American art historian from the University of Columbia and renowned expert on the Gothic style, is *"categorically opposed"* to such a move. *"There are so many layers of paint - up to twenty-six in a sample taken from a Virgin and Child. Which one would we choose? The first one? The last one? The choice would have to be arbitrary. It would mean imposing our own taste"*. He thinks that the sculptures were repainted regularly up until the 16th century when taste moved completely away from the Gothic. One of his colleagues, Alain Erlande Brandeburg, curator at Paris' Cluny museum, also describes the idea as *"absurd"*. *"Around the middle of the 18th century, ideas on the intensity of colours changed completely. It's impossible to know the exact state of the intensity of the cathedral's polychrome decoration at the time"*. Yves Boiret, a member of the Executive Committee of the International Council of Monuments and Sites (ICOMOS), also expresses his *"personal"* reservations, emphasizing that reversible techniques are preferred for restoration work. *"Watercolours would be better in the restoration of indoor paintwork whereas, in this case, it would be necessary to use resistant paints"*. Jean-Michel Brioist, regional curator for historic monuments, and the man in whom the final decision may rest, considers it *"highly improbable"* that polychrome decoration will be restored.

While he readily acknowledges the problems involved in the exercise, Frédéric Thorel nevertheless refuses to change his opinion: *"The only cathedral where the colours have been restored is Lausanne in Switzerland. Are we going to portray the Cathedral of Amiens in its true likeness?"* He would like artists to be brought into the debate and specialists of all sorts, especially those concerned with World Heritage monuments, to give their opinions.

Nicolas MICHAUX

TO FIND OUT MORE ...

THE WORLD HERITAGE: a fold-out brochure, illustrated with a selection of magnificent colour photos, explaining how the World Heritage Convention and List work, and incorporating a complete list of the 358 sites and a world map showing their locations.

A LEGACY FOR ALL: an illustrated guide, with splendid colour photos, to 57 of the world's major natural, cultural and historic sites, from the rock-hewn churches of Ivanovo in Bulgaria, the remains of ancient Carthage (Tunisia) and Chartres Cathedral (France), to the Pyramids (Egypt) and Yellowstone National Park in the United States. UNESCO, 1982.

THE CHALLENGE OF OUR CULTURAL HERITAGE: WHY PRESERVE THE PAST? Edited by Yudhishthir Raj Isar. Co-sponsored by UNESCO and the Smithsonian Institution with US/ICOMOS and the National Trust for Historic Preservation. 1986, 252 pp.

TEMPLES AND TOMBS OF ANCIENT NUBIA: The International Rescue Campaign at Abu Simbel, Philae and Other Sites: A comprehensive and lavishly illustrated account which recreates the excitement and enthusiasm of all those who participated in a campaign which, over a period of 20 years, painstakingly dismantled the magnificent temples and tombs of Nubia and reassembled them in safe locations. Edited by Torgny Säve-Söderbergh, the eminent Swedish Egyptologist who was leader of the Scandinavian mission to Sudanese Nubia and represented his country on the Executive Committee of the campaign, the work also sets out valuable guidelines for future campaigns of a similar nature. Thames and Hudson/UNESCO 1987, 256 pp. with 111 illustrations, 43 in colour.

VENICE RESTORED 1966-1986: the story of the international campaign led by UNESCO to save Venice, and the contribution of private organizations, this beautifully illustrated and meticulously researched 236-page book describes the restoration work on some of the most important Venetian monuments, especially the city's splendid churches and their art treasures. It also presents results of a number of in-depth studies, included in the campaign, on restoration techniques, many avant-garde, such as those used for restoring marble and stone corroded by atmospheric pollution. Electa, Milan, 1991.

SANA'A: Pilot restoration projects, by Michael Barry Lane, presents the 24 projects prepared under UNESCO's International Campaign to Safeguard the Old City of Sana'a (Yemen), and reviews work already completed. Richly illustrated with photos, drawings, maps. UNESCO/UNDP, 80 pp.

BOROBUDUR: THE CONQUEST OF TIME. An illustrated brochure on the international campaign to restore and protect Borobudur, Indonesia's great centre of Buddhist pilgrimage, including a history of the monument and its rediscovery. UNESCO, 1983.

Reference tables
Education
Educational expenditure
Science and technology
Culture and communication
Libraries
Book production
Newspapers and other periodicals
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Film and cinema
Radio and television broadcasting
International trade
in printed matter

Statistical Yearbook 1992

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Albania, Cambodia and the Czech and Slovak Federal Republic have had sites added to UNESCO's World Heritage List: they are the city of Butrinti, Angkor and the historic core of Prague, as well as Cesky Krumlov and Telc: the other natural and cultural sites approved for addition by the World Heritage Committee at their annual meeting in Santa Fe, New Mexico, United States, are: Rammelsberg-Goslar (Germany); Fraser Island (Australia); the Belovezhskaya Pusche National Park (Belarus); the regions of Wulingyuan and Huanglong and the valley of Jiuzhaigou (China); Pueblo of Taos, in New Mexico (United States); the Saint Stephen Cathedral in Bourges (France); the ancient city of Pythagoreion and the temple of Heraion in Samos (Greece); the Pre-Hispanic City of El Tajin (Mexico); the old town of Zamosc (Poland); the historic monuments of Novgorod and its environs as well as those of Vladimir and Suzdal, and the Solovetsky islands (Russia); the archaeological site of Ban Chiang (Thailand).

AÏR TÉNÉRÉ ADDED TO THE DANGER LIST (Photo IUCN/J. Thorsell).

The Committee transferred six threatened natural parks onto the List of World Heritage in Danger: the Srebarna Biosphere Reserve (Bulgaria) on the Danube delta; the Plitvice Lakes National Park, on the border of Croatia and Serbia; the Sangay National Park (Ecuador); the Manas Wildlife Sanctuary (India); the Aïr-Ténéré National Nature Reserve (Niger); Mt. Nimba on the border between Guinea and Cote d'Ivoire.

UNESCO SOURCES

TO HAVE AND TO BE

Many people agree that development should have a cultural dimension. But is this the solution to Africa's problems?

"There will be no development, that is, no qualitative transformation in peoples' lives, unless progress takes root in their culture. Until now, development has been defined as 'having'. Let's now try to define it as 'being'." Stanislav Adotevi, UNICEF's West Africa representative, made this statement to some 100 researchers, officials and development specialists who met in Abidjan from 2 to 6 November.

This regional conference on the cultural dimension of development in Africa - organised under the aegis of five specialist agencies from the United Nations family and led by UNESCO - was part of UNESCO's World Decade of Cultural Development (1988-1997).

"There have been so many development plans and improvements, so many projects which, over the decades have met with nothing but indifference, or even worse, rejection, by the very populations whose lives they were supposed to be improving"; Henri Lopes, the Congolese Assistant Director-General for Culture at UNESCO, opened the debate by emphasising how acutely the need for an *"authentic development"* is being felt, most especially in Africa. But it is still far from being universally recognised, he said, pointing out that, as recently as one year ago, the United Nations General Assembly adopted *"an international strategy for development which omitted to mention the importance of cultural development"*.

AFRICA'S CREATIVE GENIUS

He suggested that the meeting - which was organised in conjunction with UNICEF, the World Bank, the World Health Organisation, the United Nations Industrial Development Organisation, the African Development Bank (ADB), and the Swedish International Development Authority - set up an international network to follow up the idea of cultural development, which would be called "Abidjan 92". The ADB extolled *"the expression of the African creative genius"* while deploring *"the imitation of foreign things, which is now the rule."* *"It is urgent to affirm Africa's cultural identity."* This presupposes *"coherent (government) cultural policies supported by programmes of action."*

Mr. Adotevi highlighted UNICEF projects based on traditional structures which have taken root in countries like Mali and Burkina Faso. He believes these have allowed *"the societies concerned to take responsibility for themselves because they know how to inspire motivation and support."*

In Burkina Faso, there have always been associations called *"Naam"* which, in the Moré language, means *"power, chiefdom"*. Within these organisations, men and women, young and old, in the village take collective responsibility for the farming and education of the community. They have survived the colonial period as well as the introduction of monetary exchanges because of *"their capacity for innovation and mobilisation"*. At the moment, more than 2,500 of these communities are maintaining a kind of support network, sharing efforts to combat drought and the rural exodus, and playing an active role in the local community groups. Their social activities include: training adults, building village pharmacies, helping in family planning... In Mali, the "Ton" is also a traditional institution of community action.

RESPECT OF VALUES

"These groups have always taken account of the cultural characteristics of their milieu. This explains their success as well as their impact," the UNICEF representative said. *"Their method is to help the peasant based on what he is, that is, his nature; what he knows and lives, that is, his culture; what he knows how to do, that is, the technologies which he is able to master himself; what he wants, that is, his hopes to sensitise, motivate and mobilise."*

This development, UNICEF stressed, takes place in a framework of *"respect of values, of the powers which reign in a society, which people want to see continued."*

But maybe that's where the stumbling block lies. A number of participants refused to see the cultural dimension as the miracle solution to Africa's development problems. Axelle Kabou, from Cameroon, author of "And If Africa Refused Development", was deliberately provocative.

WOMEN MUST BE ALLOWED TO PARTICIPATE FULLY IN DEVELOPMENT (Photo UNESCO/ Marc and Evelyne Bernheim).

She took violent exception to the *"hackneyed ideas of African intellectuals who mapped out the whole reasoning that we are now using on development and culture"*.

While not denying the importance of culture, she denounced the cult of traditional values which leads to navel-gazing. *"By denying the source of change, certain peoples end up with nothing but the past as a future,"* she said. *"It is unquestionable that the big problems facing black Africa now are very different from those of the past"*. She believes past rhymes with passivity. She is staggered at what she considers to be a craze for *"pre-colonial African values"* even though, at the time of the clash between Africa and the Christian West, they clearly demonstrated their *"inappropriateness"*.

The continent's salvation resides in its ability to assimilate modern universal techniques: *"the big question about development in Africa is whether African societies can turn to their advantage their anchorline to general development. This is something which one can certainly complain about but which one cannot ignore."*

DOUBTS ABOUT EXCESSIVE VENERATION

Other speakers, while not as iconoclastic as Axelle Kabou, expressed doubts about the excessive veneration of African cultural values, which derive from practices not easily acceptable in our time.

For example, the ancestral practice of burying the body of the chief along with all his riches. Jeanine Bugain, Secretary General of a non-governmental organisation called the International Committee of African Women for Development, said under-development in Africa *"can be explained by the cultural obstacles preventing women from fully participating in the social process."*

It's essential to be discriminating. *"There are some ancestors of whom we're proud and others of whom we are ashamed,"* said Henri Lopes.

Some of the examples of community participation were met with scepticism. They were criticised for favouring the so-called "informal" sector which, as far as some people are concerned, undermines the normal ability of a modern, organised state to function. *"Make no mistake about the crisis nature of this phenomenon. It arises from the economic logic of survival,"* warned Herve E. N'Kom, from Cameroon, director of a bank in France, who criticised the *"liberalism of the poor"* which, for him, means the absence of law. Albert Tevoedjre, a parliamentarian from Benin, stressed the extent to which African societies are *"dislocated from the islands of modernisation within vast spaces barely affected by change."*

"The forces of change are not aiming first and foremost at the improvement of the material conditions of life," Mr Tevoedjre said. Advocating a *"reorientation"* of the social dynamic, he emphasised at the same time how slow *"the emergence of new ways of doing, living and thinking"* will be.

Diomansi BOMBOTE
Abidjan

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***"WHAT IS THE USE OF A MORE EFFICIENT UNIVERSITY** with good examination results, where more students graduate at the end of shorter study periods, if that university remains cut off from the world and its graduates find themselves unequipped to face active life?"* asked the Senegalese Minister of Education, Andre Sonko, on 19 November when he opened a six-day seminar on the restructuring of African universities.

Some 40 rectors, vice-chancellors and other heads of universities participated in the conference, organised by UNESCO and the Association of African Universities.

At the end of the conference, they adopted the "Dakar Declaration", containing some 30 recommendations.

These dealt with issues such as admission policies based on the selection of the best applicants, the need for greater autonomy and the establishment of private educational institutions. The Rector of the University of Dakar, Souleymane Niang, proposed the establishment of a permanent conference of African universities so as to enhance continued cooperation among them.

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SACRED GROVES, the homes of gods, will help restore degraded savanna areas in northern Ghana which have been seriously damaged by intensive farming, firewood cutting and the expansion of villages and cities.

The "Cooperative Integrated Project on Savanna Ecosystems of Ghana", newly launched by UNESCO's Man and Biosphere Programme (MAB), is financed by funds-in-trust provided by the German Ministry for Economic Cooperation (US Dollars 738,000).

Its aim is three-fold: to study the biological diversity of the groves and the functioning of the original savanna ecosystem; to promote development by seeing how plants and seeds from the groves could be used to restore degraded land; and to provide training and education for scientists and students as well as the local community for whom the sacred groves play an important role in their religious and cultural life.

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"The man-made changes in the atmosphere, since the beginning of industrialisation, are the fastest on record for over 200,000 years," according to one of the speakers at the **"ATOM AND GEOLOGY"** conference held at UNESCO on 25 and 26 November. On the agenda were: the uses of atoms for the earth sciences; the method of using natural radioactivity for dating rock samples; the evolution of the Earth's climate; the use of nuclear and fossil energies; and the treatment of radioactive waste.

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"AIDS: IT'S TIME FOR SCHOOLS TO ACT!" UNESCO had this message printed up into posters and distributed throughout the world to mark World Aids Day which, this year, centred on the theme of "A Community Commitment".
Some 5000 posters were sent to schools to encourage them to participate in the fight against the

pandemic. UNESCO is supporting various activities undertaken by non-governmental organizations, like the Association SOS-SIDA of Lebanon which is launching a prevention campaign in the country's schools and universities.

COMING TOGETHER AGAIN

The Central Asian and Transcaucasian Republics are renewing links.

The Hotel Azadi in the northern heights of Tehran was the venue from 14-18 November of a gathering organized by UNESCO and hosted by the government of Iran. From this 26-storey hotel, virtually the entire city of Tehran could be seen. The most dazzling view, however, was of the Alborz Mountains, the symbol of freedom and strength in Persian poetry, calmly overlooking the city.

The business of the day was to help the newly independent Central Asian and Transcaucasian Republics with a systematic programme for scientific and cultural co-operation, with each other and with neighbouring countries. Government representatives, scientists, historians and researchers came from four of the five Central Asian republics - Kazakhstan, Kyrgyzstan, Turkmenistan and Uzbekistan (the representatives of Tajikistan were prevented from attending by unsettled conditions in their country) - as well as the three Transcaucasian republics - Armenia, Azerbaijan and Georgia. Colleagues from many other countries (22 countries in all, including the republics) also came to discuss problems and exchange notes.

The Republics, though often lumped together as one, have very different political, social and economic conditions. What they do share is their modern history.

SAFEGUARDING IDENTITY

Throughout the past seventy years, the Communist rulers tried to mix the populations of these republics, change their borderlines and destroy their cultural identities. Communism also ended any cooperation which existed between the republics and their southern neighbours. All the republics have, in turn, striven to keep their identity by referring to their history, their culture and their language. Now that they are independent, they want to consolidate their individual identities and give proper value to their heritage.

The congress examined this heritage, particularly in terms of linkages and interactions between the republics. The final declaration underlined that *"the growing awareness of a shared and variegated cultural and spiritual heritage, which must be understood and revitalized in a spirit of pluralism, ethnic co-existence and unity in diversity, makes international co-operation vitally necessary."*

One of the best papers was by Dr. Eden Naby of Harvard University who suggested that the history of each republic be re-written by historiographers in the area.

This would require tremendous effort and expertise if it is to be done scientifically and with reference to first-hand sources. Most of the history of these republics has been written by Communists and the documents relating to the area have been destroyed by Soviet officials. The re-writing of history, though not impossible, would pose serious academic problems.

CONSERVING HISTORY

The conservation of historic monuments and city centres appeared a more tangible programme. The final declaration endorsed the promotion of a programme of research on the ancient monuments and the creation of an encyclopedia on historical geography of the area. Numerous monuments in the Central Asian Republics such as the Bibi Khanim Mosque and the Shahi-Zindehin necropolis in Samarkand or the eighteenth-century hexagonal dome of Korus in Registan Square, would all benefit greatly. It was also suggested that, in one of the cities, a museum of Central Asian cultural history could be created, and the historic city of Samarkand in Uzbekistan was considered as the most suitable place for the opening of an institute of Central Asian Studies.

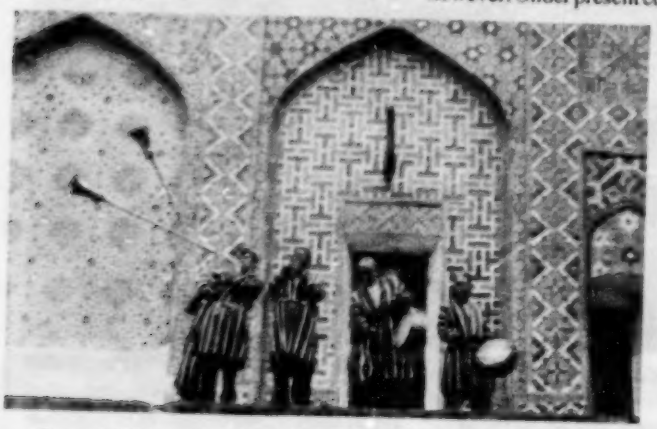
The scientific capabilities of the republics was another subject discussed in great detail. Participants weighed up their strengths and weaknesses, and the possibilities of an exchange of students, researchers and technological know-how.

Many speakers seemed interested in telecommunications and the environment. They stressed the importance of the advanced telecommunications that the republics would need if they are to maintain contacts with each other and with the West.

Most of the republics also face very serious environmental problems and would benefit greatly from research conducted in the West. Mr. Umirzak Sultangazine, head of the Kazakhstan Academy of Sciences, spoke of the vast areas of his republic that had been used by the Soviet

government for military and nuclear tests. This had left a legacy of environmental disasters, he said. He suggested that the advanced technology used for military purposes can now be used for research into improving the environment. Mahmud Salakhitdinov of the Academy of Sciences in Uzbekistan stressed that the main difficulty of all these republics is to know how to transform the resources available to them from one politico-economic system into another suitable for the advanced technological world.

This essential transformation in the systems of management, economic conduct, finance, banking and communications is probably the most arduous task facing the republics. Furthermore, they need to make this transformation quickly with well-defined plans of action. The West could help a great deal.



THE CITADEL OF KOKAND IN UZBEKISTAN: A NEW EMPHASIS ON OLD TRADITIONS (Photo UNESCO/Toby Molenar).

On social issues, the most interesting paper was offered by Dr. Shirin Akiner of the Central Asia Research Forum in London. She spoke about the political and social difficulties of women in the Central Asian Republics in the past seventy years, due mainly to the contradictions of two value systems. Dr. Akiner recounted that, after the October Revolution, women were torn away from their traditional Islamic customs and forced to accept new Communist values. She recalled that, in 1927 and 1928, women were forced to take off their "chadors" (the traditional Islamic cover) which were then burnt in the squares to remind them of the importance of breaking away from tradition. Now, she said, women face a dichotomy again. Dr. Akiner stressed that we do not know what these women are thinking now, and what their vision of the future is. She suggested that another congress be organized to discuss women in the Republics.

Federico Mayor, the Director-General of UNESCO, made a significant socio-political reference in the final paragraph of his address. He stressed that if the congress and its decisions were to have a meaningful application, an atmosphere of peace, understanding, tolerance and cooperation, as well as respect for basic human rights must exist within these republics.

Mr. Mayor's statement met with fierce criticism from one of the most hardline daily newspapers in Tehran, which mainly questioned his reference to tolerance. This contrasted sharply with the coverage of other newspapers and the warm hospitality extended by the government of Iran which went far beyond normal protocol.

Mr. Mayor was pointing to a key issue, however. Under present conditions in most of these republics, it is questionable whether UNESCO can achieve its aims: Tajikistan could not send delegates to the congress because of fighting in the republic; Azerbaijan and Armenia have been paralysed for three years by war; and the internal political systems of many of the Asian Republics are still unstable.

Despite these difficulties, it has to be said that, without gatherings such as this one organised with the help of Iran, the Republics will not have the opportunity to air their problems. And without international organisations such as UNESCO to channel the actions, the implementation of many programmes will be difficult, to say the least, for every one of the republics.

Massoumeh TORFEH
Senior producer, BBC world service, Persian section.

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FALSE AND SUSPENDED DOMES, VAULTS WITHOUT SCAFFOLDING, "umbrella" and other types of house coverings are presented in **ROOFS 2**, an 81-page manual by Yona Friedman, just published by UNESCO. Focusing on local materials, simple technology and sophisticated ideas and using "picture scripts", the manual also provides information on maintenance, temperature control, fire prevention, etc. Last year, **ROOFS 1** (see Sources No. 29/October 1991) was awarded the Grand Prize at the 5th International Design Competition in Osaka (Japan), and again, earlier this year, Friedman won the Habitat (UN Centre for Human Settlements) Scroll of Honour *"for his lifelong search for innovative solutions to human settlements problems and his efforts to communicate scientific knowledge of building and construction techniques to the poor and deprived groups of developing societies."*

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A UNESCO CENTRE FOR MEMBRANE SCIENCE AND TECHNOLOGY is to be set up in Australia, under an agreement signed in November by the Director-General of UNESCO, Federico Mayor, and the Australian Member of the Executive Board, Barry Jones. Membranes play a central role in the biological processes of all living organisms. They are the barrier controlling the flow of substances to and from cells. Synthetic membranes have come to be important for many industrial and biomedical applications - from water desalination to dialysis membranes in artificial kidneys. The centre in Australia will promote the application of membrane science and technology to improve the environment and quality of life, focusing especially on the developing countries of Africa and Asia.

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Creation of a **WORLD SPORT DAY FOR PHYSICAL EDUCATION AND SPORT**, to be celebrated during the second week of October, has been proposed by the Intergovernmental Committee for Physical Education and Sport, meeting in Paipa (Colombia) from December 8 to 10.

"AT THE END OF OUR ROPE"

The dilemna of African students "abandoned" in Eastern Europe.

They came, they studied - and, in many cases, are still studying. Young Africans enrolled in Eastern European universities, and especially the former Soviet Union, are bearing the brunt of the turmoil rocking that region and their own continent.

Two sets of figures illustrate their dilemna. Until 1991, African students were receiving government scholarships - paid more or less regularly - plus 90 rubles a month from the Soviets. This was a comfortable living compared to local grant holders. Now, they are on the same level as local students: 720 rubles a month, or a little over a dollar. This can buy about a dozen university meals or less than a third of the minimum necessary. As for the payments from their home countries, they are becoming so scarce as to have almost completely disappeared. Furthermore, if students decide that it's more trouble than it's worth to continue their studies, all too often they can't even leave. Airlines are insisting that they pay for their trips home in dollars.

"Friendship between peoples" did things on a large scale. Following independence, tens of thousands of young people from Africa came to *"sister countries"* to study, usually for a period of four years. There are now some 8,000 students - according to African figures - in the former Eastern bloc countries, 20,000 according to local sources. They have been abandoned to a plight which has led Salim Ahmed Salim, the Secretary General of the Organisation of African Unity (OAU), and Federico Mayor, Director General of UNESCO, to launch an appeal for aid. UNESCO has allocated $500,000 to help them.

First case scenario: students whom the universities refuse to re-enrol and who, therefore, have no choice but to find a university which will accept them - but where, with what kind of problems of reintegration, and how do they just leave and start all over again?

Second case: those who have either ended their studies - about 1,000 according to African countries - or who do not wish to continue them, but prefer to come home as soon as possible: their return trip must be paid for. But that gives rise to another problem: many African countries either refuse to guarantee employment to graduates or want those who are still studying to complete their courses.

Third case: students who would not consider going back. Some of them have been given political refugee status but they need a livelihood as much as those who want to stay to continue their studies.

UNESCO is prepared to give each of them $15 a month for four months, during which time a solution must be found for these students who have become *"strangers in a strange land"*. But there is a major problem which would apply in each of the above cases: how do we get money - or any kind of aid - to the students? How can they be identified and their needs evaluated? One of the students summed up their plight in the French daily newspaper, Le Monde: *"We're at the end of our rope."*

René LEFORT

WE HAVE MANY PROJECTS and we're in great demand but there's also a wide gap between what we'd like to do and the means we have to do it. This was the conclusion of UNESCO's Intergovernmental Informatics Programme (IIP) Committee which met at Headquarters from December 1 to 4. The 130 participants detailed IIP's priorities: training, software development, information networks, research/development, and national and regional policies and strategies. Because of IIP's reduced resources, an appeal for contributions was made to attract new partners from industry, software producers and service companies.

OVER 44 MILLION TEACHERS, half in primary education, are the focus of the current issue of **EFA 2000**, a quarterly bulletin published by UNESCO for the Secretariat of the International Consultative Forum on Education for All. **EFA 2000** cites the great increase in their numbers since 1966 (16 to 44 million) when the ILO/UNESCO Recommendation concerning the Status of Teachers was adopted. Yet their status, according to the ILO, has reached *"an intolerably low point."* Profiles of teachers, facts and figures on the theme, book notes and a calendar of relevant meetings complete the issue.

UNESCO SOURCES

POLICING THE PIRATES

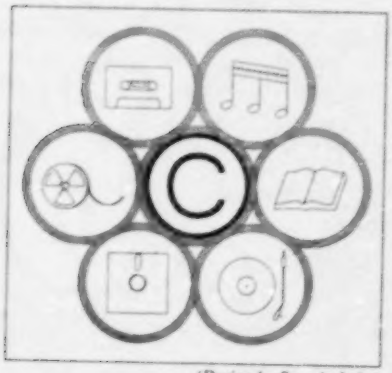
The pirating of artistic works is a multi-billion dollar industry.

As recording and transmission technology advances at an extraordinary pace, artists are struggling to protect their works from new and sophisticated copying techniques.

In the Far East, big-time pirates can already record a million bogus audio cassettes within a week of a work's formal release. The artist doesn't receive a penny in royalties.

The digital revolution in sound recording (digital compact cassette and minidisc) now means that pirates can make perfect copies or clones from the original source, a revolutionary and hard-to-combat challenge to the legitimate product.

A new process called "sampling" uses digital technology to reproduce recorded sounds or melodies which are then rearranged at will. Someone "plays" a new piece of music on a specially wired keyboard exclusively using the sounds or melodies he has copied or sampled. For instance, a piece by jazz trumpeter Miles Davis could be broken down into single notes which would be programmed into the sampler and used as the raw material to play, for instance, a classical trumpet piece. The new piece would profit from Davis' distinctive sonority. Musical copyright traditionally covers the melody, or succession of notes, but not single notes. The theft of musical copyright by sampling is hard to prove and trials are long and expensive.



(Design by Pamela Lake)

Advances in fibre optics and satellite technology are expected soon to bring about dial-a-movie services whereby a viewer can watch any movie desired at home on a high-definition screen with a charge deducted automatically from his bank account. This development has created a huge market in film libraries as viewers increase their consumption.

It's good news for film buffs, but film performers are upset that they will not share in windfall profits made from their old films even if they have already received their original contracted payment. Any attempt to introduce perpetual copyright for performers, however, is expected to meet stiff opposition from the Hollywood film industry.

SPACE BOOTY

The modern problem of protection copyright is truly out of this world. The European Space Agency, for instance, acknowledges that their satellites will eventually be vulnerable to pirates who will devise a way to intercept data and photos as they are beamed to Earth. Such property is not presently covered by copyright.

The stakes are high. According to the most recent statistics from the International Federation of the Phonographic Industry (IFPI), annual pirate cassette and compact disc sales in Asia/Australasia total USD 206 million, in Europe USD 233 million and in Latin America USD 160 million. And home music copying in the United States costs the recording industry USD 4-6 billion a year.

These issues raised heated debate at a UNESCO forum on challenges to copyright in the 21st century held from 16 to 18 November. It coincided with the 40th anniversary of UNESCO's Universal Copyright Convention.

Solutions? Sometimes the same advanced technology can work on the artists' behalf. The forum heard of a new digital tape recorder which puts a special electronic "flag" on a tape made from a copyrighted source. The flag prevents further copying by automatically switching off the recorder.

Copyright protection is a laborious and ongoing task and UNESCO was urged to do its part to educate both governments and the public on how copyright works and to follow closely the evolution of this new technologically fueled challenge.

Peter LOWREY

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"RUSTY PICTURES", by the German film-maker, Manfred Wilhelms, was awarded the Premier Grand Prix in the 16th International Art Film Festival held at UNESCO from 19 to 30 November.

Wilhelms filmed the painter, Fritz Kraidt, as he dealt with his main subject of interest, the ruins of the industrial era.

The film was chosen out of 65 movies in the festival. Twenty-six were awarded prizes under 12 categories.

The prize-giving ceremony will take place at UNESCO on 23 January.

The festival, which is held every year, rewards original films using artists as their subject.

The films often take the form of a dialogue between the film-maker and the painter, sculptor, architect or musician.

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LOOKING AHEAD

During the year 1993, proclaimed **INTERNATIONAL YEAR FOR THE WORLD'S INDIGENOUS PEOPLE** by the UN General Assembly, some 30 United Nations Days will be observed, starting with **INTERNATIONAL WOMEN'S DAY** which will be celebrated throughout the UN system on March 8. **"CLASSICS OF THE AMERICAS AND EUROPE"** a concert featuring works by Bach, Gottschalk, Cervantes, Goldbaum, Piazzolla, Villa-Lobos, Gomezia, Nazareth and Fernández, will take place at Headquarters on February 16. A Meeting of Experts will be organized with the International Labour Organization (ILO) at Headquarters on February 25 to 26 to discuss the opportunity of a **RECOMMENDATION ON THE STATUS OF THE ARTISAN.** An exhibition of paintings by Iranian artist **ROSHEIN TAVAKOLIANI** will be on view at Headquarters from March 1 to 12. Over 200 experts will attend the **INTERNATIONAL CONGRESS ON EDUCATION FOR HUMAN RIGHTS AND DEMOCRACY** in Montreal (Canada) from March 3 to 11. Marking the 45th Anniversary of the Universal Declaration of Human Rights (adopted in 1948), the Congress will also pave the way for a major UN Conference on Human Rights in Vienna in July. Meetings scheduled in the context of UNESCO's **INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION** (IOC) include the 17th Session of the **IOC ASSEMBLY** from February 15 to March 10, preceded by the IOC Executive Council from February 23 and 24; the 8th Session of the IOC Committee on **TRAINING, EDUCATION AND MUTUAL ASSISTANCE** (TEMA - VI) from February 26 to 27; and on the same dates, the First Session of the IOC Committee for the **GLOBAL OCEAN OBSERVING SYSTEM** (GOOS - I), a long-term, comprehensive multi-purpose system for all marine activities aimed to benefit all of these IOC meetings will be held at Paris Headquarters.

OUR NEXT ISSUE will be devoted to **UNESCO AND LATIN AMERICA**, focusing on the activities which the Organization and that region are carrying out together to promote its integration, development and democratization.

SOURCES